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ISSN 0228-4111



NEWSLETTER OF THE LONDON CHAPTER,
ONTARIO ARCHAEOLOGICAL SOCIETY
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September 2001

01-5

The October Speaker will be Josehp Muller, Ministry of Tourism, Cuture and Recreation, London. His topic is *"The McLeod Site and Early Paleoindian Small Sites in Southern Ontario"*. Come and join us Thursday October 11th at the museum.

As always, our meeting will be held at 8 pm at the London Museum of Archaeology, 1600 Attawandaron Road, near the corner of Wonderland & Fanshawe Park Road, in the northwest part of the city.

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The Sunnydale Site: AgHh-53

A Small Point Archaic Camp in North London

Holly Martelle
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INTRODUCTION

This article describes the results of excavations carried out at the Sunnydale Site (AgHh-53), a Small Point Archaic camp located in North London. Although the site was first identified in the early 1980s, development did not threaten its existence until early this year, when it was decided that a salvage excavation would be required prior to development approval by the Ministry of Tourism, Culture and Recreation. While artifact recoveries suggest the site was occupied during the Terminal Archaic (3500 – 2700 B.P.), the specific tool types identified are indicative of a site type or function noticeably different than those previously reported for this time period.

SITE LOCATION & ENVIRONMENT

The Sunnydale Site (AgHh-53) is located in north London, along a tributary of the North Branch of the Thames River (Medway Creek) (Figure 1). The camp is strategically situated, atop a prominent ridge or knoll that intersects a steep, forested bluff leading down to the floodplain of Medway Creek. At an elevation of approximately 270 metres above sea level, this represents the highest point of land in the general area, which consists of gently rolling terrain. To the east of the site is a small swamp or wetland. The lands surrounding the site comprise a portion of the physiographic zone known as the Stratford Till Plain, characterized by deposits of brown calcareous silty clay (Chapman and Putnam 1984:133). As described in an early 19th century surveyor's field note book, the forests of the area once consisted predominantly of maple, beech, elm, and basswood, interspersed with poplar, butternut, oak, ash, pine, ironwood, and cherry (Hilts et al, 1977).

Although today the western margins of the Sunnydale Site are covered in secondary tree and plant growth, it appears that virtually all of the site area was once subject to cultivation. Plough scars, buried vegetation horizons and the recovery of 20th century shot gun shells and soda bottle glass in the one-metre units adjacent to the ravine, suggest that even this area has undergone some ploughing.

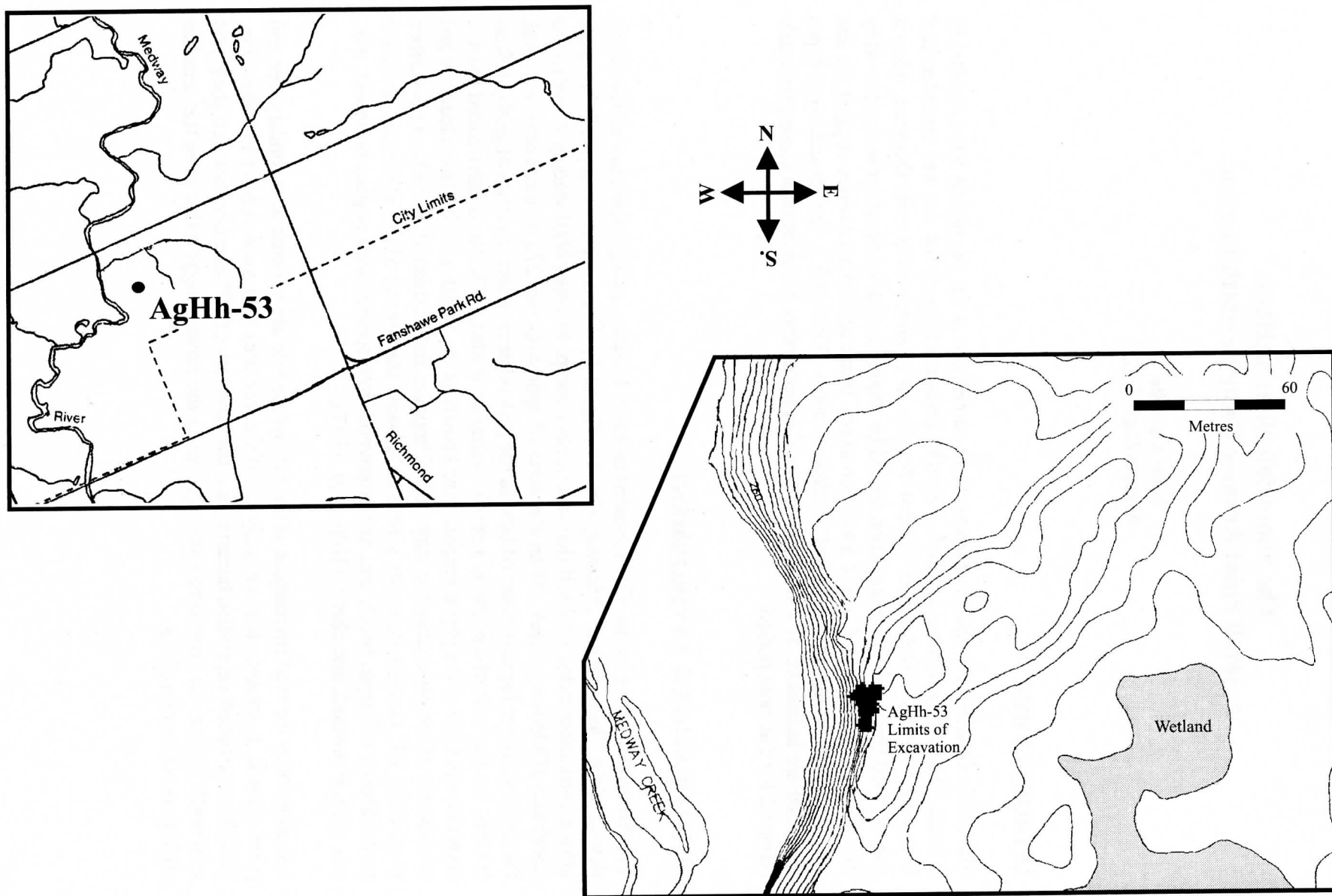


Figure 1. Location & Physical Setting of the Sunnydale Site (AgHh-53)

HISTORY OF INVESTIGATIONS

The Sunnydale Site was first identified in 1981 by Peter Timmins during the "City of London Archaeological Survey Project" (Timmins 1983) conducted by the Museum of Indian Archaeology (now the London Museum of Archaeology). At that time, 17 pieces of chipping detritus and one side-notched projectile point were found scattered over a 900 square meter area (Timmins 1983:33). During the current field season, the site was relocated as part of a standard Stage 2 assessment of a development property. This resulted in the identification of an additional 21 pieces of chipping debris, one projectile point and one celt fragment. Although subsequent Stage 3 testing of the site did not generate elevated artifact yields (only 53 artifacts in total from 20 one-metre units), it was decided that the site would require excavation given the high frequency of formal tool recovery.

The Stage 4 investigation of the Sunnydale Site involved the excavation of an additional 145 one-meter units covering an area of approximately 250 square metres. All of the soil excavated was screened through 1/4" mesh hardware cloth. Each square was excavated to the subsoil, with the unit floor shovel shined in an attempt to define any posts or features.

RESULTS

The combined Stage 3-4 excavations of the Sunnydale Site resulted in the recovery of 1,563 artifacts, including fragments of 13 projectile points, four point preforms, 8 biface fragments and five celts. In addition, 1,525 pieces of chipping detritus, two utilized flakes, one retouched flake scraper, and one shouldered knife were also collected.

As shown in Figure 2, the majority of artifact yields came from the central portion of the site, generally along its north-south axis. Artifact frequencies varied across the site, perhaps reflecting the presence of discrete activity areas. The west, central area of the site produced the highest number of formal tools (Figures 4 & 5), many of which reflect the process of projectile point manufacture and use. As excavations proceeded along the and down the ravine slope, artifact recoveries rapidly declined.

Features

A single feature representing a shallow ash filled depression was documented in the northwest section of the excavation area (Figures 2 & 3). The feature appeared as an ovoid shaped layer of dark ash outlined by a deposit of light grey ash. Both layers contained miniscule flakes of charcoal. In profile, the feature appeared to form a shallow basin reaching a maximum depth of 17 cm. After the feature was profiled, half of its contents were removed and screened through ¼ inch screen. This sample produced six pieces of chipping detritus and a partially manufactured projectile point. The remainder of the feature was removed and bagged for flotation and processing at a later date.

Unfortunately, this was the only feature identified on the site. If other features were present at one time, they were likely destroyed by ploughing.

Figure 2. Artifact Densities per One Metre Unit

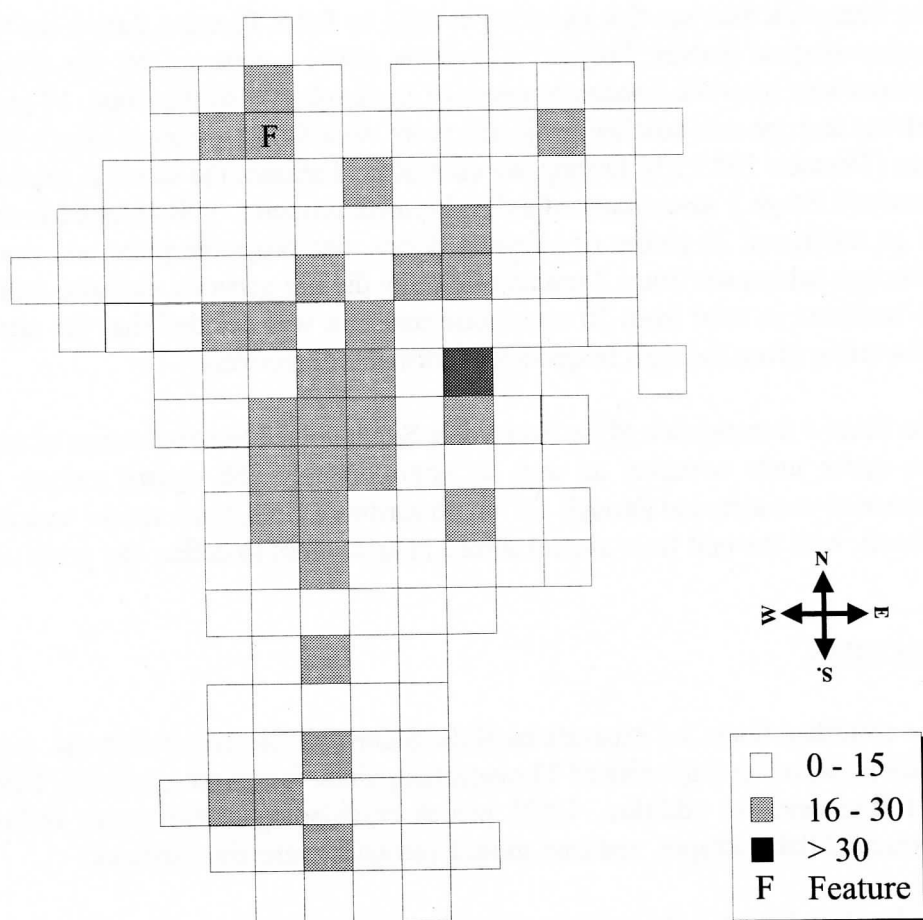


Figure 3. Feature 1 Top Plan (left) and Profile (right)

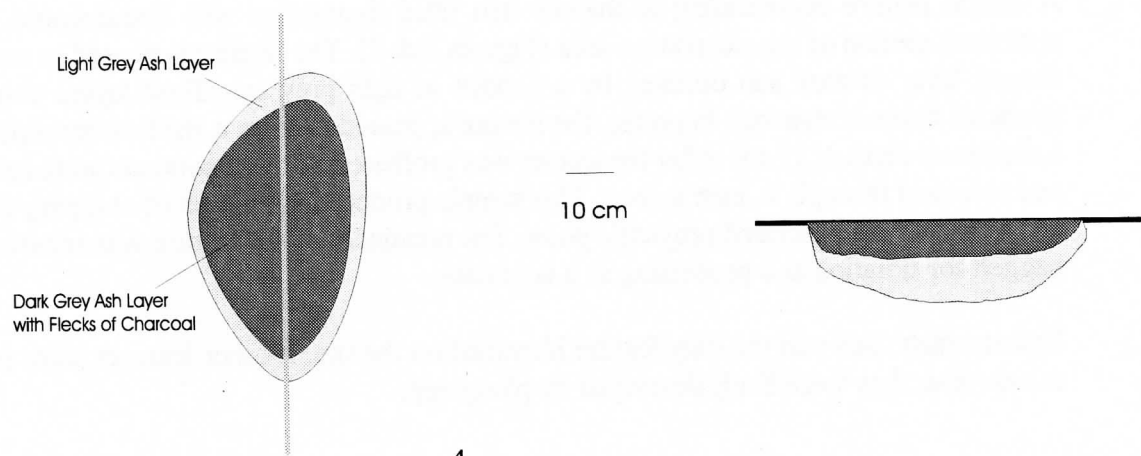


Figure 4. The Distribution of Points & Preforms

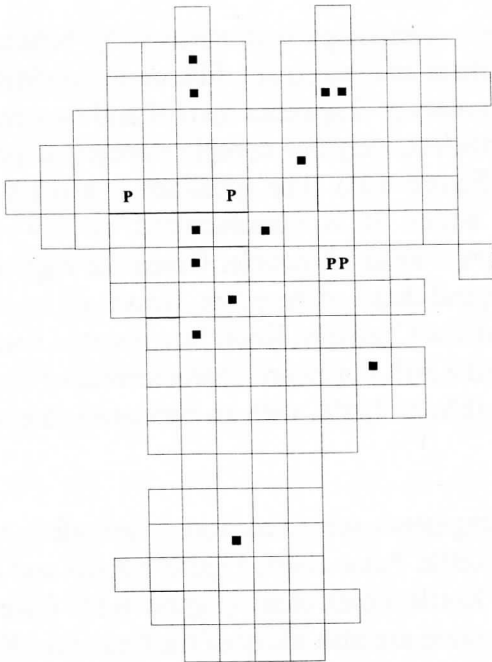
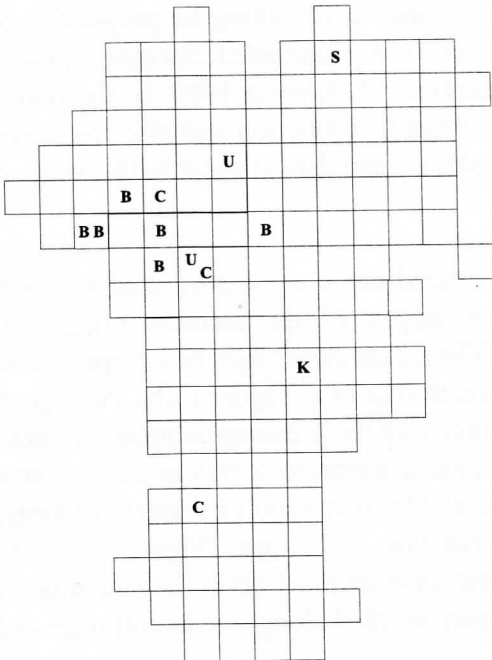


Figure 5. The Distribution of Other Tool Types



Bifacially Worked Tools

The Sunnysdale Site artifact assemblage is dominated by bifacially flaked tools and tool fragments. Although 11 of these specimens are difficult to confidently assign to any specific tool type, 13 are projectile points or fragments thereof and four represent point preforms or “blanks” (Figure 6). Nevertheless, only one complete projectile point was recovered during the Stage 4 excavations (Figure 6.H). The specimen is a small, side-notched point with heavily reworked lateral edges. It is manufactured on low quality Onondaga chert, presumably originating from a local till cobble. Given the high degree of reworking, it is difficult to determine the original shape of the point. However, its size and morphology most closely resembles those from the Crawford Knoll Site, located near the Lake St. Clair Delta (I. Kenyon 1989). Crawford Knoll Points are characteristic of the Small Point or Terminal Archaic (3500 – 2700 B.P.) (Muller 1989), with an estimated date range of 3300 – 2900 B.P. (Ellis et al. 1990:107).

Several additional point fragments were recovered, including seven point tips (four of Onondaga chert, three of Kettle Point chert; Figure 6.A-E) and one corner-notched base finely manufactured from Kettle Point chert (Figure 6.F). Given their thin profiles and extremely tiny overall size, these are also likely of the Crawford Knoll type.

Other projectile point styles were also identified in the artifact assemblage. For example, the point recovered in 1981 by Timmins, is long, narrow and side notched. In addition, one heavily reworked Innes point (cf. Lennox 1986) manufactured on Onondaga chert was also recovered during salvage excavations (Figure 6.L). This latter specimen has been refashioned into a scraper. Variation in point shape and size now seems typical for Small Point Archaic assemblages, although this trend has been more difficult to explain (I. Kenyon 1980:9; Muller 1983:3; Snary 2000). The presence of multiple point types at the Sunnysdale Site again raises questions about the factors contributing to projectile point variability in the Late Archaic. While some have previously attributed distinctive point styles to different cultural groups and band micro-traditions (I. Kenyon 1980:9), the frequently appearing pattern of point style co-occurrence may hint that function and other factors may also have explanatory roles to play and especially since some data suggest both darts and arrows were used in this time period (Snary 2000).

Several other artifacts recovered can also be attributed to the process of projectile point manufacture, with varying stages of the manufacturing sequence represented. Two incomplete notched tools of Onondaga chert might be interpreted as points that were rejected and discarded during manufacturing (e.g. Figure 6.G). Point preforms or “blanks” are also represented in the assemblage, with three examples manufactured on Kettle Point chert and one on Selkirk chert. All of these are extremely thin and demonstrate the high degree of skill possessed by their knappers. The midsection of these preforms expand slightly from an almost perfectly square, rather than ovoid, base (Figure 6.I-K). Unfortunately, there are no complete specimens and most have snapped off in the midsection or just below the tip. One mended piece has been roughly worked along one lateral edge and the tip, suggesting it too

Figure 6. Points & Preforms (Actual Size)



A



B



C



D



E



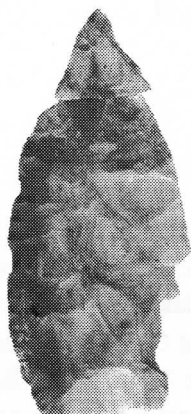
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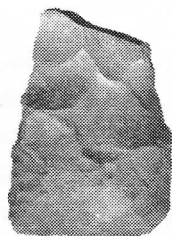
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I



J

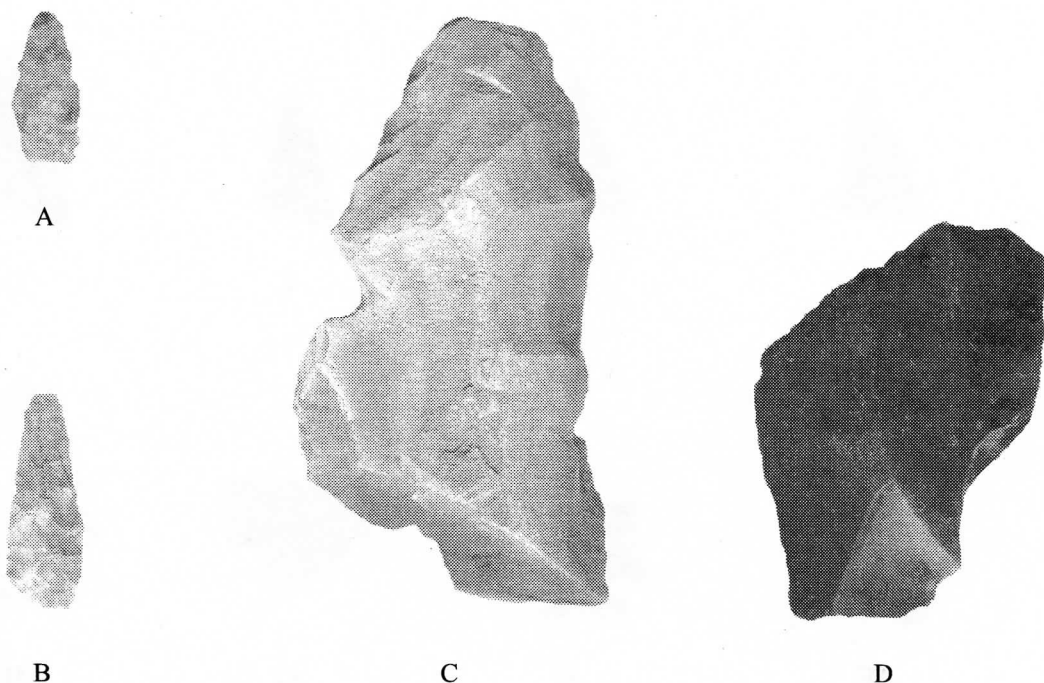


K



L

Figure 7. Other Lithic Tools (Actual Size)



Miniature Points?, A-B; Shouldered Slate Knife, C; Flake Scraper, D.

was discarded during manufacture (Figure 6.I).

The remainder of the biface assemblage is not readily attributable to any formal tool type. Three biface fragments (one on Kettle Point chert, two on local cobble Onondaga) may also be preform fragments, although these are thicker and less carefully flaked than the other examples and cannot be confidently interpreted as such. Of interest are two tiny, bifacially worked fragments that are long, slender and roughly triangular in shape (Figure 7.A-B). By their morphology, both could represent either drill fragments or miniature projectile points, although their base characteristics do not readily support the former interpretation. At this point in time, their function is not easily determined.

One of the most interesting artifacts recovered from AgHh-53 is a coarsely flaked, single shouldered slate knife (Figure 7.C). The tool is bifacially worked on all edges. It has a maximum length of 77.7 mm, is 38.6 mm wide at the shoulder and 21.3mm at the stem. Similar tools, including some items on coarser-grained rocks, have been recovered from

other Small Point Archaic Sites (Ellis et al. 1990:110), although most are manufactured on fine-grained cherts.

Scrapers are conspicuously absent at this site, with the only identifiable scraping tool being a large primary flake of Kettle Point chert with retouch on the distal edge of its dorsal surface (Figure 7.D). This tool has a maximum length of 56.8 mm, is 37.8 mm at its widest point.

Utilized Flakes, Cores and Chipping Detritus

The Sunnydale Site artifact assemblage also contains two utilized flakes and 1,525 pieces of chipping detritus. Only two readily identifiable cores were collected, both of which are of Onondaga chert of local origin.

It is clear from the Stage 4 flake assemblage that very little primary reduction was conducted on site. Only a small number of primary flakes were identified, with the majority resulting from bifacial retouch and thinning (Table 1).

The assemblage is noticeably dominated by Kettle Point chert, a popular flaking material that originates from the eastern shore of Lake Huron. Onondaga chert is also well represented in the sample. While primary outcrops of Onondaga chert occur along the north shore of Lake Erie east of the Grand River and in upper New York State, most examples from this site appear to be derived from secondary glacial deposits in the local till. The recovery of a cobble of local Onondaga chert till supports this interpretation. A few pieces of Selkirk chert were also noted. Selkirk chert is a moderate to good quality raw material that outcrops near Selkirk, at the embouchure of Sandusk Creek on the north shore of Lake Erie. It too can appear in local, secondary deposits throughout southern Ontario. Other examples of unidentifiable but presumably locally derived pebble cherts were also present.

Table 1. Flake Characteristics

Chert Type	Flake Type						
	Primary	Secondary	Broken	Shatter	Micro	Total	
						n	%
Kettle Point	75	345	104	40	139	703	50.18
Onondaga	64	165	83	102	56	470	33.55
Selkirk	11	30	4	4	0	49	3.50
Burnt	17	54	45	28	16	160	11.42
Other	0	5	9	5	0	19	1.36
Total n	167	599	245	179	211	1401	100.01
%	11.92	42.76	17.49	12.78	15.06	100.01	

One of the most intriguing aspects of the Sunnysdale Site excavations is the high frequency with which celts and celt fragments were recovered. A total of six specimens were collected during the Stage 2 to 4 investigations of the site, with most recovered from the surface (Figure 8). All are manufactured from a fine grained schist material and have some damage present on their bit edge. Interestingly, four of the six specimens have similar widths, measuring between 30 and 32 mm. The majority have plano-convex cross-sections, although bit profiles vary from concave-convex to plano-convex (Table 2). Three of the celts are very finely ground and have smooth surfaces. The others have coarse surfaces and have only undergone rough shaping and smoothing.

Table 2. AgHh-53 Celt Characteristics (measurements in mm)

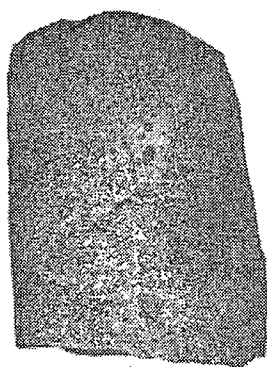
Figure	Raw Material	Length	Width	Profile	Bit Profile
8.A	fine grained schist	42	30	plano-convex	concave-convex
8.B	fine grained schist	82	48	plano-convex	n/a
8.C	fine grained schist	98	32	convex-convex	convex-convex
8.D	hornblende schist	67	31	plano-convex	plano-convex
8.E	hornblende schist	66	29	plano-convex	plano-convex
8.F	fine grained schist	70	32	plano-convex	convex-convex

INTERPRETATIONS

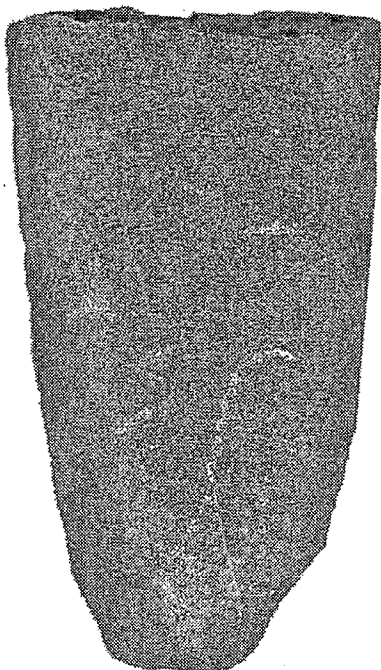
Judging from both its physical setting and artifact assemblage, the Sunnysdale Site can be interpreted as a small, Small Point or Terminal Archaic campsite. The recovery Crawford Knoll and Innes-like projectile points is consistent with this interpretation. Other tool forms recovered, including ground stone celts, bifacially worked preforms and single shouldered knives, are also typical of this time period. Sites of similar age include Crawford Knoll (I. Kenyon 1980), Knechtel I (Wright 1972), Inverhuron (W. Kenyon 1959), Rocky Ridge (Ramsden n.d.), Innes (Lennox 1986) and Welke-Tonkonoh (Muller 1989). Radiocarbon dates from these sites suggest an approximate date of 3500 to 2700 B.P. for the Small Point Archaic (Muller 1989). A comparison of the Sunnysdale Site location and assemblage with these known sites demonstrates several unique qualities of this site and suggests new questions about Small Point Archaic occupations.

Based on the current database, the settlement and subsistence pattern for Small Point Archaic populations is thought to have consisted of seasonal movements between lakeshore and interior settings. The majority of Small Point Archaic sites so far identified are located in proximity to lakeshores (e.g. Crawford Knoll, Knechtel I, Inverhuron, Rocky Ridge), although at least three of these are in close proximity to each other (Knechtel I, Inverhuron, Rocky Ridge). A few sites, Innes and Welke-Tonkonoh being notable examples, are located in the interior. Based on this pattern of site locations and perceived differences in tool kits, researchers have argued for at least two distinct Small Point Archaic site types: 1) a lakeshore camp (represented by Inverhuron, Crawford Knoll, Knechtel I, Rocky Ridge); and 2) an

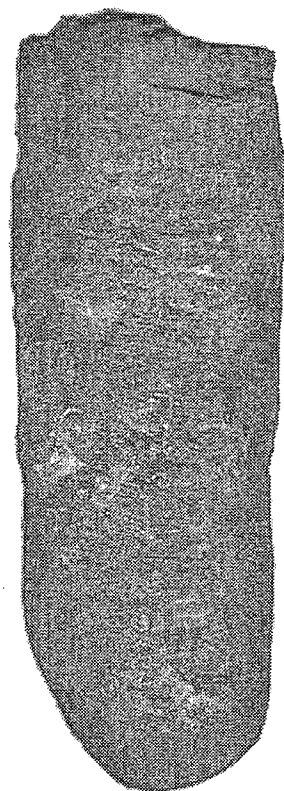
Figure 8. Celts (Actual Size)



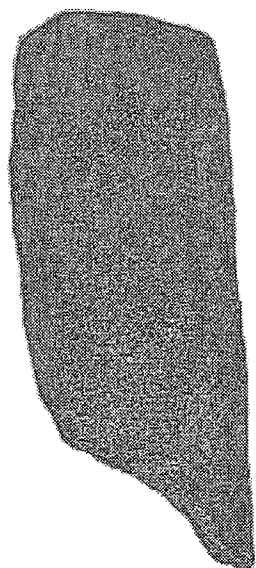
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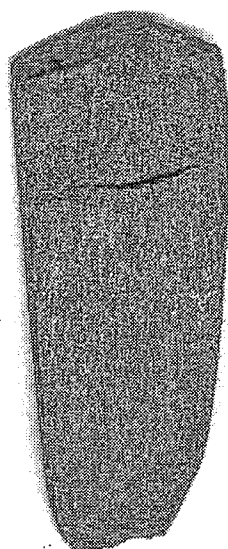
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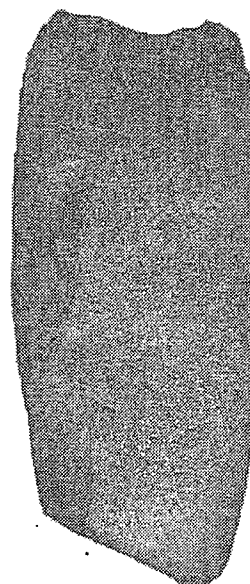
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D



E



F

interior winter campsite (represented by Innes and Welke-Tonkonoh). In this model (Ellis et al. 1990; Ellis and Spence 1997; Lennox 1986; Muller 1989), it is hypothesized that Late Archaic populations traveled inland to the interior during cold months, where they centered their activities on deer hunting and hide-working. In the warmer seasons, groups moved to lakeshore environments, where there was a concentration on aquatic mammal and bird hunting and fishing. This interpretation stems from the unique nature of the tool kits recovered from each of these site types. Interior sites usually possess a high frequency of projectile points and scrapers and lack fishing apparatus and ground stone items (axes, adzes, celts). These latter tool types are more characteristic of warm weather lakeshore occupations (e.g. Inverhuron) which, coincidentally, possess a lower frequency of projectile points and scraping implements.

It is difficult to fit the Sunnydale Site into this proposed model of the Small Point Archaic for a number of reasons. While in one sense its location is fairly typical of other Small Point Archaic sites, its assemblage is unique in many respects. Like many other sites of this time period, AgHh-53 is located in a resource rich area. It is in close proximity to Medway Creek and is immediately adjacent to a small swamp. Hence, in regard to its location, it is most similar to the interior sites of Innes and Welke-Tonkonoh both of which are perched atop a high ridge or knoll and overlook poorly drained, swampy areas. Both are also associated with mast-producing forests, as is the Sunnydale Site. Nevertheless, the tool assemblage from this site is quite different from these other interior sites, given that there is a relative absence of scraping tools and a high proportion of ground stone wood working tools. Ground stone items of this type are completely absent from both the Innes and Welke-Tonkonoh Sites.

In light of these findings, it is also difficult to interpret the function of the Sunnydale Site. It may be that this site represents a new site type, perhaps a small interior occupation centred on some sort of woodworking activity like canoe manufacture. This activity could suggest the use of the site during the warmer rather than colder months. Unfortunately, no faunal or floral material was recovered that could assist in determining the season the site was occupied.

One other very prominent activity at the Sunnydale Site appears to be the use, or at least discard of exhausted items, and manufacture of projectile points. This interpretation is based on the high frequency of projectile point fragments recovered, many of which were rejected during various stages of manufacture. In this sense the site does resemble other interior sites. There is very little evidence of primary reduction at this site, as mostly thinning and retouch flakes were recovered. It is likely that the occupants of the Sunnydale Site did much of their initial stone-working at primary chert outcrop, as Muller (1989) suggests is typical of Late Archaic and Early Woodland populations who extensively manufactured and utilized tool preforms. This practice allowed a finished tool to be produced with relatively little additional work (see also Ellis and Spence 1990).

Because the majority of flaking debris and tools recovered from this site are manufactured on Kettle Point chert, it is possible that this population incorporated chert acquisition into their seasonal round. This is the closest primary chert outcrop to the site, located approximately 100 km away. It was typical for Late Archaic populations to most utilize the

nearest high quality chert source. For example, the Innes Site assemblage is dominated by Onondaga chert, which is not surprising given its close proximity to the outcrop (Lennox 1986:225).

In sum, the Sunnydale Site represents a Small Point Archaic campsite of unique character. It has expanded our understanding of the nature of variability of these kinds of sites and, in the future, may offer some interesting insights into the seasonal activities of Small Point Archaic populations.

Acknowledgements

We would like to thank Mr. Gordon Thomson, President of Corlon Properties Inc. for funding the excavations. Mr. Thomson's interest in the history and pre-history of the London area make him a pleasure to work for. Thanks also goes out to Neal Ferris, of the Ministry of Tourism, Culture and Recreation, for offering the services of his Summer Experience Program field crew (Jennifer Campbell, Jenny Omstead, Mitzie Ladd, Sean Henry and Skye Phibbs). This project would not have been possible without the hard work of Archaeologix field and lab personnel, including Kevin Gibbs, Brent Wimmer, Jaime Ginter, Jodi Blumenfeld, Kurt Kostuck, John Sheen, Cate Smith, Kris Dietrich, Marla Toyne, and Jackie Hoek. Peter Timmins and James Wilson also provided many insightful comments during the preparation of this article.

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